

ABSTRACT

Therapeutic sources for use in the practice of brachytherapy comprise a radioactive composite that includes (a) a polymeric matrix and (b) a radioactive powder, e.g. Pd-103 or I-125, consisting essentially of very fine radioactive particles that are randomly and essentially uniformly dispersed within the polymeric matrix. The composite may be in the shape of one or more solid cylindrical rods surrounded by a non-radioactive sleeve. Alternatively it may be a hollow rod, suture, film, sheet, or microspheroidal particles. The composite may be shaped by molding, extrusion or other methods, may be made with a flexibility suitable to its intended use or may be encapsulated in a metallic capsule.